

CLAIMS

I Claim:

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1. A video driver system comprising:
a first graphics device having an input and a first video component output to provide a first video output component signal;
a second graphics device having an input and a first video output component output to provide a first video output component signal;
a first video output port having a first node coupled to the first video component output of the first graphics device and the first video component output of the second graphics device; and
a second video output port having a first node coupled to the second video component output of the second graphics device.

2. The system of claim 1 further comprising:
an oscillator coupled to the first graphics device;
the first graphics device having a periodic output to provide a periodic output signal based upon the oscillator; and
a synchronizer device having a first input coupled to the periodic output, and having an output coupled to the second graphics device.

3. The system of claim 2, wherein the periodic output signal is a horizontal synchronization signal.

4. The system of claim 2, wherein the periodic output signal is a vertical synchronization signal.

5. The system of claim 2, wherein:
the second graphics device further comprises a periodic output to provide a periodic output signal based on the oscillator; and
the synchronizer further comprises a second input coupled to the periodic output of the second graphics device.

6. The system of claim 5 further comprising:
the synchronizer device having a synch output to indicate when synchronization occurs between the first graphics device and the second graphics device; and
a controller having a first input coupled to the synch output, a second input coupled to the first graphics device, and a third input coupled to the second graphics device, and a port selector output to indicate which of the first graphics device and the second graphics device is to provide a first video output component signal to a first node of the first video port.

- 1 7. The system of claim 6, wherein:
2 the first graphics device further comprises a control output coupled to the first input
3 of the controller; and
4 the second graphics device further comprises a control output coupled to the second
5 input of the controller.
- 1 8. The system of claim 6 further comprising:
2 a bus; wherein
3 the first input and the second input of the controller are a common input coupled to
4 the bus;
5 the first graphics device further comprises a bus port coupled to the bus; and
6 the second graphics device further comprises a bus port coupled to the bus.
- 1 9. The system of claim 8, wherein the bus is a PCI (Peripheral Component Interface)
2 bus.
- 1 10. The system of claim 1 further comprising:
2 a first switch having a first input coupled to the first video component output of the
3 first graphics port, and a second input coupled to the first video component output
4 of the second graphics port, and an output coupled to the first node of the first
5 video output port, wherein the node of the first video output port is coupled to the
6 first and second graphics devices through the first switch.
- 1 11. The system of claim 10, further comprising:
2 a comparator having a first input coupled to the first node of the first video output
3 port, a second input to receive a reference signal, and an output; and
4 a controller having a first input coupled to the output of the comparator.
- 1 12. The system of claim 11, wherein the comparator is a voltage comparator, and the
2 reference signal is a voltage reference signal.
- 1 13. The system of claim 11, wherein the comparator is a current comparator, and the
2 reference signal is a current reference signal.
- 1 14. The system of claim 10, further comprising:
2 a variable reference source having an input coupled to a first output of the controller,
3 and an output coupled to a first video output component adjust input of the second
4 graphics device.
- 1 15. The system of claim 14, wherein the variable reference source is a current source.

1 16. The system of claim 10, further comprising:
2 a second switch, wherein the second switch has a first input coupled to the first video
3 component output of the first graphics port, a second input coupled to the first
4 video component output of the second graphics port, and an output coupled to a
5 first node of a resistive element, wherein the resistive element is coupled to the
6 first and second graphics devices through the second switch.

1 17. The system of claim 1 further comprising:
2 a second switch, having a first input coupled to the first video component output of
3 the first graphics port, and a second input coupled to the first video component
4 output of the second graphics port, and an output coupled to the first node of the
5 second video output port, wherein the second video output port is coupled to the
6 first and second graphics devices through the first switch.

1 18. The system of claim 1 further comprising a monitor coupled to the first video output
2 port.

1 19. A method of providing a video signal, the method comprising:
2 generating a first signal at a first device, wherein the first signal is representative of a
3 first video output component;
4 providing the first signal to a first node;
5 determining a value of the first signal at a first output node;
6 generating a second signal at a second device, wherein the second signal is
7 representative of a first video output component;
8 providing the second signal of the second device to the first output node; and
9 adjusting the second device until a value of the second signal at the first output node
10 substantially matches the determined value of the first signal at the first output
11 node.

1 20. The method of claim 19, further comprising the step of:
2 removing the first signal from the first node prior to the step of providing the second
3 signal.

1 21. The method of claim 19, wherein the value of the first and second signals is a voltage
2 value.

1 22. The method of claim 19, wherein the step of determining includes the substep of:
2 modifying and comparing the value of the first device until the value of the first
3 signal substantially matches a predetermined value.

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- 1 23. The method of claim 22, further comprising the steps of:
2 determining a first digital value associated with the first device, wherein the value of
3 the first signal is based on the first digital value when the first signal substantially
4 matches the predetermined value;
5 providing the first digital value to the second device;
6 the step of providing the second signal includes providing the second signal from the
7 second device based on the first digital value; and
8 the step of adjusting includes adjusting the second device without changing the first
9 digital value.
- 1 24. The method of claim 23, wherein the first digital value is associated with a digital to
2 analog converter of the first device.
- 1 25. The method of claim 19, further comprising the steps of:
2 generating a third signal at the first device, wherein the third signal is representative
3 of a second video output component;
4 providing the third signal to a second output node;
5 determining a value of the third signal at the second output node;
6 generating a fourth signal at the second device, wherein the fourth signal is
7 representative of a second video output component;
8 providing the fourth signal of the second device to the second output node;
9 adjusting the second device until a value of the fourth signal at the first node
10 substantially matches the determined value of the third signal at the second output
11 node.
- 1 26. The method of claim 25, wherein:
2 the step of adjusting the second device until a value of the fourth signal includes
3 adjusting a signal received by the second device;
4 the step of adjusting the second device until a value of the fourth signal includes
5 adjusting a color palette associated with the second device.
- 1 27. A method of providing a video signal, the method comprising:
2 generating a first signal and a second signal from a first device, wherein the first
3 signal is representative of a first video output component of a first frame of video
4 data, and the second signal is representative of a first video output component of a
5 second frame of video data;
6 generating a third signal from a second device, wherein the third signal is
7 representative of a first video output component of a third frame of video data;
8 providing the first signal to a first port during a first time period;
9 providing the third signal to the first port during a second time period, wherein the
10 second time period is sequentially adjacent to the first time period; and
11 providing the second signal to the first port during a third time period, wherein the
12 third time period is sequentially adjacent to the second time period.

28. The method of claim 27, further comprising the step of:
receiving a state indicator;
wherein the steps of providing occur when the state indicator has a first state value;
and
5 when the state indicator has a second state value performing the following steps:
providing the first signal to the first port;
providing the third signal to a second port; and
providing the second signal to the first port after the step of providing the first
signal to the first port.

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